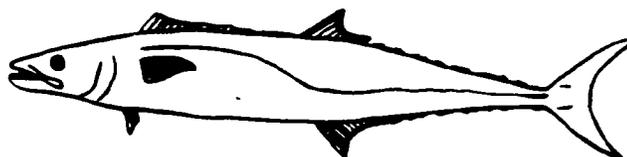
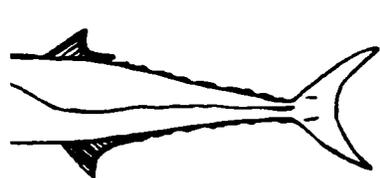


3/28/94

**AMENDMENT 7
TO
THE FISHERY MANAGEMENT PLAN
FOR
COASTAL MIGRATORY PELAGIC RESOURCES
IN
THE GULF OF MEXICO
AND
SOUTH ATLANTIC
INCLUDES ENVIRONMENTAL ASSESSMENT
REGULATORY IMPACT REVIEW
AND
INITIAL REGULATORY FLEXIBILITY ANALYSIS**



MARCH 1994

**GULF OF MEXICO FISHERY MANAGEMENT COUNCIL
LINCOLN CENTER, SUITE 331
5401 WEST KENNEDY BOULEVARD
TAMPA, FLORIDA 33609-2486
813-228-2815**

**SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL
SOUTHPARK BUILDING, SUITE 306
1 SOUTHPARK CIRCLE
CHARLESTON, SOUTH CAROLINA 29407-4699
803-571-4366**

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ABBREVIATIONS AND ACRONYMS USED IN THIS DOCUMENT

ABC	Acceptable Biological Catch
FMP	Fishery Management Plan
GMFMC	Gulf of Mexico Fishery Management Council
H & L	Hook-and-Line
IRFA	Initial Regulatory Flexibility Analysis
MAFMC	Mid-Atlantic Fishery Management Council
MSY	Maximum Sustainable Yield
NMFS	National Marine Fisheries Service
RIR	Regulatory Impact Review
SAFMC	South Atlantic Fishery Management Council
SPR	Spawning Potential Ratios
TAC	Total Allowable Catch

I. HISTORY OF MANAGEMENT

The Fishery Management Plan for Coastal Migratory Pelagic Resources of the Gulf of Mexico and South Atlantic (FMP), approved in 1982 and implemented by regulations effective in February of 1983, treated king and Spanish mackerel each as one U.S. stock. Allocations were established for recreational and commercial fisheries, and the commercial allocation was divided between net and hook-and-line fishermen.

Amendment 1, implemented in September of 1985, provided a framework procedure for pre-season adjustment of total allowable catch (TAC), revised king mackerel maximum sustainable yield (MSY) downward, recognized separate Atlantic and Gulf migratory groups of king mackerel, and established fishing permits and bag limits for king mackerel. Commercial allocations among gear users were eliminated. The Gulf commercial allocation for king mackerel was divided into eastern and western zones for the purpose of regional allocation.

Amendment 2, implemented in July of 1987, revised Spanish mackerel MSY downward, recognized two migratory groups, and set commercial quotas and bag limits. Charter boat permits were required, and it was clarified that TAC for overfished stocks must be set below the upper range of acceptable biological catch (ABC). The use of purse seines on overfished stocks was prohibited.

Amendment 3 was partially approved in 1989, revised, resubmitted, and approved in 1990. It prohibited drift gill nets for coastal pelagics and purse seines for the overfished groups of mackerels.

Amendment 4, implemented in 1989, reallocated Spanish mackerel equally between recreational and commercial fishermen on the Atlantic group with an increase in TAC.

Amendment 5, implemented in August 1990, made a number of changes in the management regime which:

- o Extended management area for Atlantic groups of mackerels through the Mid-Atlantic Fishery Management Council's (MAFMC) area of jurisdiction;
- o Revised problems in the fishery and plan objectives;
- o Revised the fishing year for Gulf Spanish mackerel from July-June to April-March;
- o Revised the definition of "overfishing";
- o Added cobia to the annual stock assessment procedure;
- o Provided that the South Atlantic Fishery Management Council (SAFMC) will be responsible for pre-season adjustments of TACs and bag limits for the Atlantic migratory groups of mackerels while the Gulf Council will be responsible for Gulf migratory groups;
- o Continued to manage the two recognized Gulf migratory groups of king mackerel as one until management measures appropriate to the eastern and western groups can be determined;
- o Redefined recreational bag limits as daily limits;
- o Deleted provision specifying that bag limit catch of mackerel may be sold;
- o Provided guidelines for corporate commercial vessel permits;
- o Specified that Gulf group king mackerel may be taken only by hook-and-line and run-around gill nets;
- o Imposed a bag limit of two cobia per person per day for all fishermen;
- o Established a minimum size of 12-inch (30.5 cm.) fork length or 14-inch (35.6 cm.) total length for king mackerel and included a definition of "conflict" to provide guidance to the Secretary.

Management Objectives

The current FMP as amended lists eight plan objectives:

1. The primary objective of this FMP is to stabilize yield at MSY, allow recovery of overfished populations, and maintain population levels sufficient to ensure adequate recruitment.
2. To provide a flexible management system for the resource which minimizes regulatory delay while retaining substantial Council and public input in management decisions and which can rapidly adapt to changes in resource abundance, new scientific information, and changes in fishing patterns among user groups or by areas.
3. To provide necessary information for effective management and establish a mandatory reporting system for monitoring catch.
4. To minimize gear and user group conflicts.
5. To distribute the total allowable catch of Atlantic migratory group Spanish mackerel between recreational and commercial user groups based on the catches that occurred during the early to mid 1970's, which is prior to the development of the deep water run-around gill-net fishery and when the resource was not overfished.
6. To minimize waste and bycatch in the fishery.
7. To provide appropriate management to address specific migratory groups of king mackerel.
8. To optimize the social and economic benefits of the coastal migratory pelagic fisheries.

II. PURPOSE AND NEED FOR ACTION

This amendment allocates the commercial quota of Gulf migratory group king mackerel in the Eastern Zone among commercial fishermen.

A federal court ruling had the effect of vacating Florida's king mackerel trip limit rule for commercial vessels in December of 1992. That, coupled with unfavorable weather on Florida's east coast, resulted in the filling of the commercial quota in south Florida before the migrating schools became available to Florida east coast fishermen north of the Dade/Monroe County line. To give economic relief to these fishermen, an emergency allocation of 259,000 pounds of king mackerel over the quota was provided to them, with trip limits of 25 fish per day.

In order to obtain information to prevent this from re-occurring, the Councils convened a workshop for king mackerel fishermen in February of 1993 in Miami attended by about 50 fishermen. The Councils received considerable public comment regarding the social and economic impacts of quota and gear allocation on the fishermen. The issue was also reviewed by the Councils' Mackerel Advisory Panels in April 1993, and public comment was received from 35 mackerel fishermen and interested persons at the Gulf Council's May 1993 meeting in Tampa, Florida. The consensus was that for the 1993-1994 fishing season the commercial quota for the Eastern Zone of Gulf group king mackerel should be divided equally at the Dade/Monroe County, Florida line, the same arrangement as had been used by the state. There were various alternatives suggested for trip limits.

The framework provisions of the FMP do not provide for suballocation by regulatory amendment, and there was insufficient time for the Gulf of Mexico and South Atlantic Councils (Councils) to develop, and the Secretary of Commerce (Secretary) to implement, a plan amendment by the beginning of the fishing season in November. Therefore, while the Councils were developing a long-term resolution to the problem by means of this amendment, the Gulf Council requested that the Secretary provide emergency implementation of the suballocation of quotas and trip limits for the 1993-1994 season for the Gulf migratory group of king mackerel.

Specifically, the Gulf Council, on behalf of both Councils, requested emergency implementation of the following to become effective on November 1, 1993:

1. The commercial quota for Eastern Zone Gulf group king mackerel (1.73 million pounds) be divided equally at the Dade/Monroe County line, with subquotas of 865,000 pounds north, and the same amount south and west of the line.
2. In the area Dade through Volusia Counties, daily commercial trip limits of up to 50 fish per vessel are to be allowed until 50 percent of the subquota is filled, then 25 fish per daily trip until the sub quota is filled. (Note: Trip limits reverted to 25 fish on February 7, 1994, and the sub quota had not been taken by the end of the season on March 31, 1994.)
3. In the area Monroe County to the Florida/Alabama border, there are to be no commercial trip limits until 75 percent of the subquota is taken, then 50 fish per vessel per day until the subquota is taken. (Note: Trip limits reverted to 50 fish on December 29, 1993, and the sub quota was filled and the season closed on January 27, 1994.)

NMFS approved for emergency implementation only the first item, geographic division of the commercial allocation, advising the Council to implement the trip limits under the framework procedure. NMFS advised that this would allow time for public review and comment, and there should be sufficient time for implementation. This action was implemented for the period October 5, 1993 through January 3, 1994, by Federal Register Vol. 58, No. 191, Page 51789 and was extended from January 4, 1994 through March 31, 1994 by Federal Register Vol. 58, No. 249, Page 69237.

The Councils provided for additional public comment and resubmitted the two trip limit items as a seasonal adjustment under the framework procedures requesting implementation by November 1, 1993.

This amendment would provide for a longer term allocation among Eastern Zone commercial fishermen on the Gulf group king mackerel. Trip limits can be adjusted under the framework seasonal adjustment in April of 1994 when the biennial stock assessment is reviewed, and total allowable catch is proposed for the 1994/1995 fishing year.

III. AFFECTED ENVIRONMENT

1. Description of the Fishery

King mackerel is a major target species of an important commercial fishery in South Florida as well as a major target species for the private boat and charter boat recreational fishery along widespread areas within the Gulf and South Atlantic regions. King mackerel are particularly important to the charter boat and offshore private boat fleets. In addition, smaller amounts of king mackerel are caught as a commercial supplement by the North Carolina charter boat fleet.

A hook-and-line fishery for king mackerel was developed commercially off Louisiana in the winter of 1982-1983. A trolled handline fishery uses gear and methods similar to the Florida hook-and-line fleet and is centered in the Grand Isle area.

Recreational users have increased in numbers over time. Many come from outside the management unit as well as areas within it. Increased income, leisure time, and a wide variety of supplies have increased participation. This participation has, in turn, generated significant amounts of economic value and also employment.

Most of the commercial fishery for king mackerel is located off Florida, and most are taken there from November through March. Current number of commercial mackerel permits in the Eastern Zone (Florida) Gulf migratory group king mackerel lists 2,132 hook-and-line (trollers), 68 net, and 264 combination of net and hook-and-line permits.

In the North Area of the zone (Volusia through Dade Counties on Florida's east coast) of approximately 200 trollers about 150 are dependent on the king mackerel fishery. They fish on Gulf group king mackerel from November through March or until the limited quota is filled and fishing is closed, usually in January.

Twelve net boats are also capable of fishing for king and Spanish mackerel in the North Area with landing capacities of 20,000 to 40,000 pounds per trip. King mackerel begin forming tight schools and become available to run-around gill nets in this area in February and March. Since 1985, low quotas resulted in early closures of the fishery before the fish became available to net boats in the North Area.

In the South/West Area of the Eastern Zone, (Monroe County to the Florida/Alabama border) fishing begins on Gulf group king mackerel in July by a few small vessels trolling off the Florida Panhandle. Daily trip catches are less than 500 pounds. This amounted to approximate landings of 22,000 pounds in 1991, 56,000 pounds in 1992, and 83,000 pounds in 1993.

In November, when the boundaries between stocks shift northward, some 75 to 100 trollers in South Florida begin fishing on Gulf group king mackerel. Some net vessels may also troll for these fish. Fishing becomes intense off Monroe County in December as the fish form large over-wintering schools. In late December or early January the fish become accessible to nets and 16 to 20 Florida Keys net boats enter the fishery. The beginning of the king mackerel net fishery in this area is variable depending on availability of other alternative fisheries (lobster and Spanish mackerel), weather, water conditions, presence of sharks, and landing prices. With good weather and marketing conditions the quota is usually filled quickly by late December or early January by the large capacity net boats.

Florida attempted to allocate king mackerel catches among fishermen in different geographic areas by areal subquotas and landing limits. The Florida trip limit regulations were vacated in December 1992, by a federal court ruling, and the Eastern Zone commercial quota was quickly taken in the Florida Keys with 900,000 pounds landed in a 10-day period in January, 1993. An emergency allocation of 259,000 pounds was given to Florida's east coast commercial fishermen. Boats were limited to 25-fish daily, and took the supplemental allocation between February 18 and March 27, 1993.

The habitat of king mackerel is described and was updated in Amendments 1 and 3. No new information is available.

2. Status of Stocks

Atlantic group king mackerel are not considered overfished. Gulf group king mackerel are overfished (spawning potential ratio (SPR) below 30 percent) and are in a rebuilding program to restore the stocks by 1997.

The SPR is the ratio of the egg-producing ability of all mature fish in a fished stock to the egg-producing ability of an unfished stock.

In its 1993 report the Councils' stock assessment panel concluded for the Gulf group of king mackerel:

"The panel continues to evaluate this stock as overfished because SPR is less than 30 percent relative to maximum spawning potential. The current SPR is 23 percent. While the stock is still considered overfished, estimated SPR is improving. Overage of catches will increase the risk of not reaching the SPR goal of 30 percent by the target recovery year of 1997."

IV. PROPOSED ACTIONS INCLUDING ALTERNATIVES

1. Summary of Proposed Actions:

- A. Suballocate the Eastern Zone Gulf migratory group of king mackerel commercial quota at the Dade/Monroe County line;
- B. Further suballocate within the two areas between net and hook and line fishermen;
- C. Require permits to specify gear type fished.

2. Actions and Alternatives:

- A. The Eastern Zone Gulf migratory group of king mackerel commercial quota is to be suballocated with division at the Dade/Monroe, Florida, county line with:

- A-1. Preferred Alternative: Dade through Volusia County (North Area): 50 percent and Monroe County to the Florida/Alabama border (South/West Area): 50 percent.

Discussion: This ratio was used by the State of Florida for its suballocation and requested by the Gulf Council as emergency allocation for the 1993-1994 season. It approximates the ratio of historic catch. The division at this location separates two distinct types of fisheries. Hook-and-line fishermen in the North Area have few alternative fishery options and are principally dependent on king mackerel. In the South/West Area fishermen have other options such as stone crabs, spiny lobsters, and reef fish. Fishing practices are different, and areas should be managed appropriately.

The North area sub-quota would apply to commercial landings of king mackerel taken off the east coast between the Volusia/Flagler and Monroe/Dade County boundaries from November 1 through March 31. The South/West regional sub-quota would apply to west coast landings between the Dade/Monroe County and Florida/Alabama boundaries from July 1 through June 30. Each sub-quota would be closed separately when their respective sub-quota is reached.

Equal sub-quotas are intended to provide equitable harvest of Gulf group king mackerel for commercial vessels holding a federal commercial mackerel permit and operating in the Gulf eastern zone off Florida. They are proposed to prevent disproportionate harvest of the federal eastern zone quota and the negative economic and social impacts that would accompany low winter landings. Regional closures, in conjunction with trip limits to be proposed in a concurrent regulatory amendment, also should reduce the risks of quota overruns and help achieve the FMP goal to rebuild this overfished resource by the 1996/97 fishing year.

Unlimited vessel harvest last season demonstrated the ability of the Key West fleet to take the Florida west coast sub-quota quickly.. In December 1993 net vessels landed 252,000 pounds of king mackerel in the Florida Keys in a 24-hour period. With trip limits to slow harvest, regional sub quotas will not be met simultaneously allowing for sequential closures and less opportunity for large quota overruns. The western zone will probably close first in mid to late January, while the east coast may remain open through mid to late March.

This preferred alternative achieves Management Objectives 4, 7, and 8 (see Section I).

A-2. Rejected Alternative: North Area: 47 percent; South/West Area: 53 percent.

Discussion: This is the mean catch for the unregulated period of 1970-1984 when nets were used in the North Area, as well as for the overall period 1970-1993 (Table 1). The use of nets on king mackerel in the North Area ended in 1985; because low quotas closed the fishing season in December or January before the migratory fish became available to nets there in February or March.

The Councils prefer the 50/50 distribution because it was used in Florida's program and it appears to be a simple and more equitable distribution of the federal eastern zone quota. Average landings for periods before and after FMP quota management trend toward the 50/50 ratio despite the years of disproportionate harvest. Also, an exact 50/50 distribution of the Federal eastern zone quota between Florida's east and west coasts is an ideal that will be difficult, if not impossible, to achieve. Time of closure is determined from a monitoring program that projects total catch and portion of quota taken from landings estimates generated from daily telephone interviews with major king mackerel dealers. These projections will vary from the final landings estimated through the Florida trip-ticket program. The final ratio of east/west king mackerel landings will vary from the 50/50 standard according to the accuracy of monitoring program estimates, dealer cooperation, delinquent landing reports, and effectiveness of the proposed trip limits to slow season-end catches. During the 1991/92 fishing year under the Florida program, east (48%) and west (52%) coast catches varied two percent from the 50/50 allocation ratio. In subsequent years after FMP implementation, variance in the east/west catch ratio probably would encompass all three allocation ratio options considered in this action.

This alternative also achieves Management Objectives 4, 7, and 8.

A-3. Rejected Alternative: North Area: 44 percent; South/West Area: 56 percent.

Discussion: This ratio reflects recent catches from 1985-1992. During this period net boats were excluded from the North Area fishery by early closures; therefore, the allocation for the North Area is lower than earlier years when nets were able to fish. Fishing begins four months earlier in the South/West, area and there are 50 percent more permit holders in that area. This alternative was rejected for similar reasons for rejection of A-2. This suballocation also achieves Management Objectives 4, 7, and 8.

- A-4. Rejected Alternative: Status quo - There is to be no suballocation by area within Florida of Gulf king mackerel.

Discussion: Under this alternative all suballocation is to be by gear allocation (or trip limits). Because of the seasonal changes due to weather and other natural and manmade phenomena, the migrating schools of king mackerel become available to fishermen in different areas at different times. In past seasons both the North and South/West Areas have experienced advantageous opportunities to take predominate shares of the quota. When this occurred in the 1992-1993 season, the Councils requested, and the Secretary granted an emergency supplemental allocation to assist fishermen in the North Area. Taking no action would continue chances for unequal distribution of catch and would not achieve management objectives.

B. Allocation by Gear.

- B-1. The commercial suballocation for the North Area is to be further allocated:**

- B-1.a. Preferred Alternative: Status quo - No allocation by gear in the North Area.**

Discussion: If small trip limits are implemented by seasonal framework adjustment, the net vessels would be precluded from reentering the fishery by the nature of their large catch capacity. In the North Zone daily trip limits of up to 50 per vessel are allowed until 50 percent of the subquota is filled, then 25 fish per daily trip until the subquota is filled.

- B-1.b. Rejected Alternative: Hook-and-line (H & L) vessels: 100 percent of North Area suballocation.**

Discussion: Net vessels have not participated in the fishery in this area since about 1985 when low quotas were filled before the fish became available in February and March (Table 2). There are approximately 12 net boats in this area with the capacity to land 20 to 40 thousand pounds per trip. Given the opportunity with favorable conditions, these few vessels could take the entire suballocation for the North Area (865,000 pounds in 1993-1994) in 3 or 4 days. This would exclude the 150 full-time trollers in the area who are totally dependent on the king mackerel fishery. Allocating the catch to H & L fishermen would distribute the economic benefits to the greater number of fishermen.

Net fishermen have the options of participating in the Spanish mackerel fishery, trolling for king mackerel, and fishing with nets or hook-and-line for Atlantic group king mackerel after March. The commercial quota for Atlantic group Spanish mackerel was increased by one million pounds for the 1993-1994 fishing year and was not fully harvested.

B-1.c. Rejected Alternative: H & L vessels: 66 percent; Net vessels: 34 percent of the North Area suballocation.

Discussion: This is the mean ratio of catch by gear for the period 1962 (when the net fishery began in the area) through 1983 when the fishery operated freely without small quotas. This distribution of the allocation would allow the net fleet to reenter the fishery with an expanding allocation as TAC increases.

B-1.d. Rejected Alternative: H & L vessels: 90 percent; Net vessels: 10 percent of the North Area suballocation.

Discussion: This ratio would allow a very limited fishery for the 12 net boats estimated to be equipped to fish for king mackerel in that area. Under the current TAC the 10 percent share, if the subquota is divided equally at the Dade/Monroe County line, would be 86,500 pounds. Without some form of trip limit (implemented by regulatory amendment in a seasonal framework adjustment) the subquota could be overrun in one day.

B-2. The commercial suballocation for the South/West Area is to be further allocated:

B-2.a. Preferred Alternative: Net vessels: 50 percent; H & L vessels: 50 percent of the South/West Area suballocation.

Discussion: This ratio was recommended by Monroe County fishermen at the February 1993 workshop.

In Monroe County there are 16 to 20 large net boats currently participating in the king mackerel fishery, some with capacity to land up to 50,000 pounds. There are another 6 to 12 small net boats in south-west Florida ready to enter the fishery when the opportunity arises. These vessels are 30 to 40 feet in length with capacities of 5,000 to 10,000 pounds.

In early December 1992 before king mackerel became vulnerable to nets, some net vessels did troll for king mackerel successfully. There may be a need to separate users by permit.

This alternative was recommended by the Gulf Council's Mackerel Advisory Panel and is the Councils' preferred alternative.

B-2.b. Rejected Alternative: Provide a phasing out of the net fishery over time in the South/West Area:

1994-1995: Net vessels: 40 percent
1995-1996: Net vessels: 30 percent
1996-1997: Net vessels: 20 percent
1997-1998: Net vessels: 10 percent
1998-1999: Net vessels: 0 percent

Discussion: Some net fishermen may be willing to revise their fishing methods if they could amortize their current investment in net gear. Increasing effort and low quotas in the fishery may require reconsideration of objectives. An all hook-

and-line fishery would distribute catch among more participants, but with a loss of efficiency.

B-2.c. Rejected Alternative: Status quo - No allocation by gear in the South/West Area.

Discussion: This would result in a South/West Area fishery situation very much like the 1992-1993 season. A small troll vessel fishery would begin in the Panhandle in July. A troll fishing derby in Monroe County would accelerate in November and December. Net catch would begin in late December or January, and the quota would be quickly filled and the season closed for the South/West Area.

C. Permit Endorsement.

By Gear

C-1 Preferred Alternative: A gear permit endorsement for the use of nets is required for taking Gulf group king mackerel in the South/West area of the Eastern Zone. Permittees with the net endorsement may fish for king mackerel only with nets in that area.

Discussion: This alternative effectively implements the allocation between net and hook-and-line fishermen set forth in preferred alternative B-2.a. This would prevent the net vessels from fishing on both gear subquotas as some have done in past years. Net fishermen testified that they would be willing to refrain from using hook-and-line gear early in the season before nets could be used if they had a separate allocation.

Net vessels have the capacity to take the quota quickly. Within a 24-hour period in late December of 1993, approximately 252,0000 pounds of net-caught king mackerel were landed at Key West and Marathon, Florida in the South/West area.

The Councils opted to require a gear endorsement only on net vessels fishing in the South/West area; because there are currently fewer than 20 in the fishery.

C-2. Rejected Alternative: Provide for separate permits for net and H & L fishermen on Eastern Zone Gulf group king mackerel.

Discussion: This would limit permittees to their particular gear subquota. Commercial permits are already required; this action would entail identifying gear type to be used and require issuing endorsements to the over 1,600 permits which are issued throughout the year.

C-3. Rejected Alternative: No change, the same commercial permit is used for all gear types.

Discussion: Without gear allocations separate permits are not needed. If gear allocations are made, statistical agents would be required to monitor and record landings of catch by gear.

**Permit Endorsement.
By Area**

- C-4. Rejected Alternative:** Provide for an area endorsement to the commercial king mackerel vessel permit for the Eastern Zone Gulf group king mackerel allowing fishermen to fish in either the northern area or the south/west area each season, but not in both.

Discussion: Fishermen are concerned that low trip limits in the northern area and unlimited trip limits in the south/west area would encourage the migration of vessels to the higher limit area. Incoming vessels would compete with local vessels for that portion of the subquota until it is filled, then return home to fish under the restricted trip limit. Vessels with home ports in the unrestricted south/west area would find it less profitable to migrate to the northern area to fish under a low trip limit, currently 50 or 25 fish per day. Thus, a combination of allocation and unequal trip limits could result in a redistribution of seasonal effort to the south/west area.

The proposed endorsement would affect only commercial vessels fishing on Eastern Zone Gulf group king mackerel. No additional requirement is proposed other than designation of the preferred area to fish.

- C-5. Preferred Alternative Status quo - No area endorsement for Eastern Zone Gulf group king mackerel.**

Discussion: In November of 1993 several commercial king mackerel vessels did move from the northern area to the south/west area to fish under that suballocation during the unlimited trip period. The extent of this catch was negligible. An area endorsement would serve no useful purpose; because net vessels in the North Area (where they are unable to fish for Gulf group king mackerel due to low trip limits) would obtain endorsements for the South/West Area.

V. ENVIRONMENTAL CONSEQUENCES

Habitat: The habitat of the coastal migratory pelagic fishes was described in the FMP and updated in Amendments 1 and 3. There is no new information, and none is presented in this document. The proposed action will have no effect on habitat.

Physical Environment: To the extent that can be ascertained, the action proposed in this amendment will have no impact on the physical environment. Gear traditionally used in this fishery (hook-and-line and run around gill-nets) has no adverse impact on the bottom substrate or other habitat. As deployed in this fishery, the gear is selective to the target species. Continuing studies have provided no new information beyond that already contained in the FMP as amended and which further defines the relationship between stocks and habitat.

Fishery Resources: The TACs are consistent with the Councils' objective to rebuild overfished stocks within prescribed periods. The proposed action is intended to protect coastal pelagic fish stocks from recruitment and growth overfishing while allocating allowable catch among fishermen.

Human Environment and Social Impact Assessment:

Issue: Provide for more equitable allocation of the commercial quotas for Gulf group king mackerel in the Eastern Zone. The alternatives for achieving more equitable allocations are discussed in Section IV with some of the alternatives identified as proposed actions by the Gulf and/or South Atlantic Councils. The alternatives are being considered because of the variable migratory nature of king mackerel which results in high localized abundance in different areas or at different times each year. Under the no-action alternative fishermen in the areas of high abundance may take all or a disproportionate share of these quotas, leaving fishermen in other areas with no, or a very small share. The effects of the alternatives are entirely socioeconomic in nature and are described in Section IV and the RIR (Section V). No effects are anticipated on the natural harvest of the stocks (or groups) regulated by the quotas and subquotas for each area or zone.

Issue: No action. The positive socioeconomic benefits of more equitable commercial allocation of Gulf group king mackerel would be forefeited.

Effect on Wetlands: The proposed action will have no effect on flood plains, wetlands, or rivers.

Mitigating Measures: No mitigating measures related to the proposed action are necessary because there are no harmful impacts to the environment.

Unavoidable Adverse Affects: The proposed action does not create unavoidable adverse affects.

Irreversible and Irretrievable Commitments of Resources: There are no irreversible commitments of resources other than costs of administering and enforcing the proposed rule caused by implementation of this amendment.

Relationship Between Short-Term Uses and Long-Term Productivity: More equitable allocation of commercial quotas for king mackerel groups should create positive socioeconomic benefits for short-term use of the resource by fishermen and will not affect long-term productivity.

VI. OTHER APPLICABLE LAW

Impacts on Other Fisheries: The proposed action in conjunction with implemented actions distributes the limited commercial quota among fishermen by means of trip limits. It does not redirect effort to other fisheries. The majority of those fishermen in the South/West Area have indicated a preference to a short fishing season for king mackerel because of their diversified options and access to other fisheries which they traditionally pursue.

Vessel Safety: The proposed actions do not impose requirements for use of unsafe (or other) gear nor do they direct fishing effort to periods of adverse weather conditions. The action, therefore, would have no effect on vessel safety.

Paperwork Reduction Act:

The purpose of the Paperwork Reduction Act is to control paperwork requirements imposed on the public by the Federal Government. The authority to manage information collection and record keeping is vested with the Director of the Office of Management and Budget. This authority encompasses establishment of guidelines and policies, approval of information collection requests, and reduction of paperwork burdens and duplications.

This amendment proposes no additional data collection other than identification of gear to be used on the commercial permit application.

Coastal Zone Management Consistency: The Councils have determined that this proposed action will be implemented in a manner that is consistent to the maximum extent practicable with the approved coastal zone management program of the affected states in the management area. This determination has been submitted for review by the affected states under Section 307 of the Coastal Zone Management Act.

Effect on Endangered Species and Marine Mammals: A formal Section 7 consultation under the Endangered Species Act (ESA) was completed for Amendment 6. In a biological opinion dated August 19, 1992, the National Marine Fisheries Service determined that fishing activities conducted under the amendment and its implementing regulations, as well as the fisheries for coastal migratory pelagic resources, are not likely to jeopardize the continued existence of any endangered or threatened species under its jurisdiction. However, it was also determined that gillnet fisheries may adversely affect the recovery of listed species of sea turtles. Accordingly, in compliance with the ESA, an Incidental Take Statement was issued and reasonable and prudent measures were specified to minimize such adverse impacts. Emergency actions described and considered herein are expected to have no additional impact on endangered or threatened species.

Scientific Data Needs: To monitor stocks to determine whether overfishing occurs, the SEFC of NMFS currently monitors catch by size (age) to estimate recruitment and acceptable biological catch. No additional collection of scientific data would be required by this amendment. The Mackerel Stock Assessment Panel and the Socioeconomic Assessment Panel have identified the following data needs:

1. An evaluation of CPUE indices should be completed relative to standardization methods and management history.
2. The socioeconomic risks of selecting TAC's above the recommended ABC range needs to be completed.
3. The size at age of both king and Spanish mackerel needs to be evaluated.
4. Size/age samples need to be increased for cobia, particularly in the Gulf.
5. The identification of Spanish mackerel stocks through multiple research techniques need to be completed.
6. Yield per recruit analyses should be conducted relative to alternative selective fishing patterns.
7. Mexican landings data needs to be obtained.
8. Research on the consequences and estimation of bycatch needs to be completed.
9. Research on the application of assessment and management models relative to dynamic species such as Spanish mackerel needs to be completed.
10. Recreational and commercial demand studies on the Spanish mackerel fishery need to be conducted and there is a need to estimate supply functions for the vessels involved in the commercial and for-hire mackerel fishery. The supply studies would involve collection of vessel costs and returns information. The studies should also involve consideration of the effect of Mexican fisheries for Spanish and king mackerel.
11. There remains a need to determine the priority research which is necessary to provide minimally acceptable analyses of stock allocation among user groups.
12. The Socioeconomic Assessment Panel recommends that the Marine Recreational Fisheries Statistical Survey be augmented in ways that provide additional data for estimating economic models.

Federalism: This proposed action does not contain policies with federalism implications sufficient to warrant preparation of a federalism assessment under E.O. 12612.

VII. PUBLIC REVIEW

Public hearings were held:

November 9, 1993

Key West, Florida
The Reach Hotel
7:00 - 10:00 p.m.

November 30, 1993

Fort Pierce, Florida
Fort Pierce Civic Center
7:00 - 10:00 p.m.

December 7, 1993

Panama City, Florida
NMFS Laboratory
3500 Delwood Beach Road
7:00 - 10:00 p.m.

The Councils received public comment at meetings:

January 19, 1994

Clearwater, Florida

February 9, 1994

St. Augustine, Florida

March 16, 1994

Gulf Shores, Alabama

List of Agencies Consulted:

Gulf of Mexico Fishery Management Council's and South Atlantic Fishery Management Council's

- Scientific and Statistical Committees
- Mackerel Stock Assessment Panel
- Socioeconomic Assessment Panel
- Mackerel Advisory Panels
- Law Enforcement Committee

National Marine Fisheries Service

- Southeast Fisheries Science Center
- Southeast Regional Office

List of Organizations Consulted:

- Concerned Fishermen of Florida
- Organized Fishermen of Florida
- Southeastern Fisheries Association, Inc.
- Monroe County Concerned Fishermen, Inc.

Responsible Agencies:

Gulf of Mexico Fishery Management Council
Lincoln Center, Suite 331
5401 West Kennedy Boulevard
Tampa, Florida 33609
813-228-2815

South Atlantic Fishery Management Council
Southpark Building, Suite 306
1 Southpark Circle
Charleston, South Carolina 29407-4699
803-571-4366

List of Preparers:

Gulf of Mexico Fishery Management Council
Terrance Leary, Fishery Biologist
Antonio Lamberte, Economist

South Atlantic Fishery Management Council
Jane DiCosimo, Fishery Biologist

Finding of No Significant Environmental Impact

The proposed action is not a major action having significant impact on the quality of the marine or human environment of the Gulf of Mexico. Proposed Actions A, and B allocate a limited king mackerel commercial resource among users and provide for compatible state-federal regulation. Proposed Action C provides for the requirement of specific permits by gear to facilitate management regulations.

Having reviewed the environmental assessment and available information relative to the proposed actions, I have determined that there will be no significant environmental impact resulting from the proposed actions. Accordingly, the preparation of a formal environmental impact statement on these issues is not required for this amendment by Section 102(2)(c) of the National Environmental Policy Act or its implementing regulations.

Approved:

Assistant Administrator for Fisheries

Date

VIII. REGULATORY IMPACT REVIEW and INITIAL REGULATORY FLEXIBILITY ANALYSIS

Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. The RIR does three things: 1) it provides a comprehensive review of the level and incidence of impacts associated with a proposed or final regulatory action, 2) it provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives that could be used to solve the problem, and 3) it ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way.

The RIR also serves as the basis for determining whether any proposed regulations are a "significant regulatory action" under certain criteria provided in Executive Order 12866 and whether the proposed regulations will have a significant economic impact on a substantial number of small entities in compliance with the Regulatory Flexibility Act of 1980 (RFA).

This RIR analyzes the probable impacts on fishery participants by Amendment 7 to the FMP. It may be noted that under the FMP, as amended, the Gulf group of king mackerel is allocated in various ways. The overall TAC (currently 7.8 million pounds) is first divided between the recreational and commercial fishermen (62/38 split). The commercial quota is in turn subdivided into Eastern Zone and Western Zone sub-quotas (69/31 split). Under an emergency action and applicable for the 1993/1994 fishing year, the Eastern Zone commercial sub-quota is further subdivided between those fishing north of the Dade/Monroe county line and those fishing south to west of the line (50/50 split). The amendment will make this latter allocation a permanent feature of the FMP. In addition, this amendment will subdivide the allocation of each subarea between troll and net fishermen. However, it may be noted that in this amendment allocation by gear type is made for the South/West Area only. The status quo - no allocation by gear type - is the preferred management measure for the North Area. Lastly, this amendment permit requires endorsement by gear type for vessels in the South/West area only. The Councils' preferred alternative for permit endorsement by area is the the status quo, i.e., no permit endorsement.

For purposes of this RIR, the area north of the Dade/Monroe county line up through the Volusia/Flagler county line is denoted North Area and the area south of the Dade/Monroe county line up through the Florida/Alabama state line, as South/West Area.

Problems and Objectives

The general problems and objectives are contained in the FMP, as amended. The purpose and need for the present regulatory amendment are found in Section II of the amendment document. Essentially the current plan amendment addresses the issue of suballocating the Eastern Zone Gulf migratory group of king mackerel between the North Area and the South/West Area, suballocating further each area's suballocation between troll and net fishermen, and requiring permit endorsement by gear type. We may note at this point that with respect to suballocation by gear type in the North Area and permit endorsement by area, the status quo is the preferred option. That is, no allocation by gear type in the North area and no additional permit requirement by area.

Methodology and Framework for Analysis

The fundamental issue in this plan amendment is the allocation of the Eastern Zone sub-quota for Gulf king mackerel between the North and South/West Areas and subsequent allocation of each sub-area's allocation between troll and net fishermen. Determination of the economic and social impacts of such allocation is therefore the main emphasis of this RIR.

From an economics standpoint, a change in allocation of the mackerel resource is deemed better if the sum of changes in net benefits to the affected sectors is increased. For an optimal allocation, the necessary condition is that the marginal net benefit is equalized among various users of the mackerel resource. In the absence of most information needed to determine an optimal allocation and the presence of other potential sources of inefficiency in the king mackerel fishery such as the recreational-commercial allocation and the Eastern Zone-Western Zone commercial sub-allocation, the methodology adopted in this RIR is one that assesses whether the allocation brought about by the proposed regulatory change would be more beneficial than the resulting allocation in the absence of such regulations. The benefits considered here consist of consumer and producer surpluses in the commercial sector mainly because this is the only sector directly affected by the proposed regulations. The analysis, nonetheless, will be more qualitative in nature.

In addition to discussions on net economic benefits, some consideration is given on such other issues as community employment and income opportunity, acceptability of the regulatory measures, present and historical participation in the fishery, and distribution of catches among various users of the resource.

Impacts of Proposed Actions and Alternatives

A. Alternatives for Allocation Between the North and South/West Areas

The Eastern Zone Gulf migratory group of king mackerel commercial quota is to be suballocated with division at the Dade/Monroe, Florida, county line with:

Preferred Option A-1: North Area: 50 percent; South/West Area: 50 percent.

Rejected Option A-2: North Area: 47 percent; South/West Area: 53 percent.

Rejected Option A-3: North Area: 44 percent; South/West Area: 56 percent.

Rejected Option A-4: Status quo - no suballocation by area within Florida of Gulf king mackerel.

The fishing season for Gulf king mackerel starts on July 1 of every year and extends to June 30 of the following year. By regulation, however, fishing for Gulf king mackerel in the North Area starts only on November 1 of every year and extends through March 31 of the following year. It may also be noted that only during this latter period is the area between the Dade/Monroe and Collier/Monroe county lines open for Gulf king mackerel fishing as part of the South/West Area. The TAC for fishing year 1993/1994 is 7.8 MP (million pounds). The established 68/32 recreational/commercial allocation ratio translates to a 2.5 MP overall quota for the commercial sector. Out of this commercial quota, 1.73 MP is allocated to the Eastern Zone and the rest to the Western Zone. Under the 50/50 allocation through an emergency action, the North and South/West Areas are each allocated 0.865 MP for the fishing year 1993/1994. The preferred option under this plan amendment will extend this allocation ratio beyond the 1993/1994 season.

When the TAC is adjusted, the absolute amount, but not the percentage, allocated to each area will accordingly change.

Since the implementation of more restrictive regulations on the mackerel fishery, the commercial fishing season for Gulf king mackerel in the Eastern Zone has never remained open beyond January. The only exception is the 1992/1993 season due to the re-opening of the fishery from February 18 through March 26, 1993 through an emergency action prompted by a request from commercial fishermen in the area. The closure date has remained relatively unchanged despite the more recent increases in TAC and commercial quota.

Historical landings of Gulf king mackerel in the North and South/West Areas have fluctuated from year to year, and depending on the period considered, the percentage of total landings accounted for by each area would differ. For example, the period 1970-1984 when harvest of mackerel were unregulated, the landings of the North and South/West Areas were in the 47/53 ratio (Option A-2). The same landings ratio holds for the period 1970-1993. Such ratio becomes 44 North Area to 56 South/West Area (Option A-3) for the period 1985-1992. In the 1991/1992 fishing year, the North Area to South/West Area landings ratio was 48/52 (Godcharles, 1993). This relatively close equality may be partly attributed to Florida's rule of a 50/50 split of the Eastern Zone quota between the two areas. In the 1992/1993 season, the ratio which was significantly different from those of previous years stood at 33/67 North Area to South/West Area. The North Area catches could have been much lower were it not for the aforementioned re-opening of the fishery through an emergency action.

We may note the fact that annual landings for both the North and South/West Areas are point estimates. If variances were also considered, a strong possibility exists that the landings ratio between the two areas would not significantly differ whichever of the options (namely, Option A-1, Option A-2, Option A-3) were adopted. Thus, it is believed that these three options would not significantly differ from one another in terms of economic impacts.

However, the impacts of any of the three allocation options could significantly differ from those of the status quo (Option A-4) as demonstrated in the 1992/1993 season when landings in the two areas differed by large amounts. The extent of this difference in impacts would depend largely on the frequency that a landings distribution similar to that of the 1992/1993 season would occur. If the 1992/1993 season turned out to be a very rare occurrence, the status quo option would have similar overall effects as the others. Otherwise, there would be significant variations in annual landings in the two areas. While the 1992/1993 season turned out to be relatively unfavorable to the North Area, there is also a possibility that the situation could be reversed with the North Area harvesting most of the Eastern subquota. The preferred option or any of the other allocation options would then eliminate, in principle, such large disparities in annual landings. It is in this sense the preferred option or any of the allocation option may be considered to effect a change in allocation of landings between the two areas.

Potentially affected by any change in allocation are about 150 troll vessels and 12 net vessels in the North Area and about 100 troll vessels and 20 net vessels in the South/West Area. The net vessels in the North Area have been effectively closed out of the Gulf king mackerel fishery since the beginning of more restrictive regulations on the fishery. Depending on additional regulations, these vessels may or may not be able to effectively re-enter the fishery under any of the allocation options.

The closure date for the 1992/1993 fishing season did not actually differ much from previous years' closure dates. Thus it may be expected that total revenues to the harvest sector of the Gulf king mackerel in the Eastern Zone would not significantly differ from what would have happened

had it been the case that the Eastern Zone quota were equally divided between the North and South/West Areas. The 1992/1993 season may then be seen more as a situation where revenues were redistributed from vessels (troll vessels in particular) in the North Area to vessels in the South/West Area. Evidently, the troll vessels in the North Area recouped a portion of lost revenues due to the re-opening of the fishery from February 18 through March 26, a time when demand for king mackerel was also relatively high (see Easley et al., 1993, for monthly shifters of demand for king mackerel). At any rate, the basic economic issue under a scenario of redistributing revenues from one sector to another is whether there is an accompanying change in producer surplus to the harvest sector, net profits to dealers, and consumer surplus to final consumers.

Producer surplus in the harvest sector may be roughly equated to net profits, i.e., the difference between revenues and costs, as appropriately modified by the presence of opportunity costs. In the present case of redistributing revenues from North Area vessels to South/West Area vessels, producer surplus to the harvest sector may increase, remain the same, or decrease if fishing costs of North Area vessels are higher than, equal to, or lower than those of South/West Area vessels. Whatever the direction of effects is, it will be negated by the adoption of any allocation option.

In the absence of information on vessel costs and returns, it is not possible to make categorical conclusions about the direction of effects on producer surplus when revenues are redistributed from the North Area vessels to those in the South/West Area. However, certain conditions are present to warrant a reasonable determination of the direction of effects. As noted earlier, there are troll and net vessels in both areas but in more recent years only troll vessels in the North Area have actually commercially fished for Gulf king mackerel. A redistribution of revenues from these troll vessels in the North Area to troll and net vessels in the South/West Area may be accompanied with an increase in producer surplus to the extent that some of the recipients in such redistribution are net vessels that may be regarded as having relatively lower costs on a per pound basis to catch king mackerel. On the other hand, it has been reported in public testimonies that troll vessels in the North Area have fewer fishing alternatives than both troll and net vessels in the South/West Area. This condition means that producer surplus forgone by North Area troll vessels would be equivalent to reduction in their net profits while producer surplus gained by South/West Area vessels would be equal to an increase in net profits less opportunity costs from alternative fisheries. Hence, taking into consideration fishing costs together with opportunity costs, it may be concluded that the mentioned redistribution in revenues would maintain about the same level of producer surplus in the harvest sector. Conversely, adoption of any allocation option would not change the producer surplus level in the harvest sector.

The above conclusion may change when vessels move from one area to the other. In the present case of redistributing revenues from North Area to South/West Area, in the event that troll or more likely net vessels in the North Area travel down South to fish for king mackerel, the resulting effects would be a reduction in producer surplus to the harvest sector. In this situation, total revenues may not significantly change but fishing costs would increase, so vessel profits would decline. Adoption of any of the allocation options would then be regarded as beneficial in terms of preventing a reduction in producer surplus.

In the case of a pure redistribution of revenues between North Area and South/west Area vessels, the effects on dealers would also be a redistribution of revenues from those in one area to those in another. Considering the relative flexibility of dealers in getting fish supply of different species or the same species from many areas, it may be concluded that such redistribution of revenues would not be accompanied by any changes in net profits. Hence, adoption of any of the allocation options would not result in changes in net profit to dealers.

Given also the case of revenue redistribution at the vessel and dealer levels, consumer expenditures and benefits from buying mackerel should not be significantly affected. Hence, adoption of any of the allocation options would not result in changes in consumer surplus.

The redistribution of revenues from North Area vessels to South/west Area vessels would mean less full-time equivalent employment in one area and more in another. Since the redistribution considered here is one from vessels with less alternative fishing activities to those with more alternative fishing activities, the reduction in full-time equivalent employment in the North Area as a result of landing and revenue redistribution may be deemed to effect a reduction in overall full-time equivalent employment. Adoption of any of the allocation options would tend to correct this situation.

Public testimonies appear to show more popular support for an allocation option over the status quo. In particular, support appears to be strongest for the 50/50 allocation between the two mentioned areas. If this general public support is taken as a proxy for the public's perception of an equitable sharing of the Gulf king mackerel resource, then adoption of this particular allocation option may be regarded to result in higher social benefits to the fishing industry relative to the status quo. Such perception of equitable sharing may also be seen as an indication that the preferred option, in itself, would not result in some user groups getting an "excessive share" of the mackerel resource. It may also be noted that the preferred option (i.e., 50/50 split), is the same as Florida's rule, so that its adoption would make state and federal rules compatible.

Any of the allocation options may require additional enforcement and monitoring costs. Division of the Eastern Zone quota between the two mentioned areas implies two closures when the respective quotas are fully taken. This entails closer monitoring of harvests in respective areas not only in terms of where harvests are landed but more so in terms of where the fish are caught. The mobility of some vessels especially around the boundary lines could compound monitoring and thereby also enforcement of fishing rules. To a large extent, however, monitoring of catches and enforcement of closures are now currently being done by both federal and state (Florida) agencies, especially Florida which has already adopted the same rule although enforcement of such rule was vacated by a federal court ruling. With adoption of the preferred option, Florida would be able to enforce the same rules. In addition, the reported general public support of the preferred allocation could mean relatively high compliance which could in turn translate into less enforcement costs.

B. Allocation by Gear

B-1. North Area

The commercial suballocation for the North Area is to be further allocated:

Preferred Option B-1.a: Status quo - no allocation by gear.

Rejected Option B-1.b: Hook-and-Line vessels: 100 percent.

Rejected Option B-1.c: Hook-and-Line vessels: 66 percent; net vessels: 34 percent.

Rejected Option B-1.d: Hook-and-Line vessels: 90 percent; net vessels: 10 percent.

The following discussion on the effects of allocation options by gear type assumes the 50/50 allocation of the Eastern Zone subquota of Gulf group king mackerel between the North and South/west Areas. In addition, it is assumed that the trip limits proposed under a supplementary regulatory amendment (GMFMC/SAFMC, 1993) would be in place and thus would be part of the

status quo (unless otherwise explicitly changed) for purposes of determining the effects of the various alternatives for allocating by gear type the North Area suballocation. Such trip limit proposal stipulates that for the North Area there is to be a daily commercial trip limit of up to 50 fish per vessel until 50 percent of suballocation is filled, then 25 fish per daily trip until the remaining suballocation is filled.

If the proposed trip limit for the North Area remained the same after implementation of this amendment, the net vessels would be practically precluded from re-entering the fishery. In this case, Option B-1.a (status quo) would be similar to Option B-1.b since practically all of the North Area suballocation would be taken by hook-and-line vessels. Under this scenario, Option B-1.c and Option B-1.d would most likely result in part of the North Area suballocation not being taken. Such a situation would be expected to result in some forgone profits by the harvest sector. In this sense, either Option B-1.b or Option B-1.a may be regarded as economically better than the other options in terms of affording higher producer surplus in the harvest sector, higher net profits in the dealer sector, and higher consumer surplus.

If the trip limits were instead eliminated or changed in such a way that net vessels could re-enter the fishery, an entirely different conclusion would ensue. The RIR accompanying the supplementary regulatory amendment concluded that a relatively higher producer surplus may be achieved by allowing both hook-and-line and net vessels to remain in the fishery but the allocation should favor the hook-and-line vessels primarily because of less alternative fisheries open to them and because of the possible higher benefits to be gained from a longer season which could result from assigning more harvest allocation to these vessels. Under this situation, Option B-1.b may be considered the least economically beneficial to the fishery.

If trip limits are then eliminated or modified, there remains the issue of how much catch should be allocated to each type of vessels in order to achieve a relatively higher producer surplus. Using current TAC, the subquota that would be assigned to the North Area would be 0.865 MP (million pounds). Either hook-and-line or net vessels have the capacity to harvest this allocation. If future TACs are increased, there would be some level at which hook-and-line vessels may not be able to fully take the quota unless additional similar vessels enter the fishery. Given current harvest capacity and the fact that net vessels can start to economically fish for Gulf king mackerel only around the end of February or early March, the resulting catch allocation between hook-and-line and net vessels under Option B-1.a (status quo) would vary on an annual basis. For the period 1985-1992, hook-and-line vessels landed an average of about 0.574 MP before the fishery closed. If the same level of harvest were maintained by these vessels, about 0.291 MP would be left for net vessels to harvest. But given now a fixed suballocation for the North Area, hook-and-line vessel landings could increase when these vessels continue to fish beyond the usual closure dates, thus only a very small amount of the North Area allocation would be left before the net season could start. It is also possible that their landings in the early months of the season could fall, as in the 1992/1993 season, so that more of the North Area allocation would be available at the start of the net season. Thus, an annual fluctuation in allocation of the quota between hook-and-line and net vessels may be expected to prevail under the status quo.

As long as this annual fluctuation in allocation reflects the respective efficiency level of each type of vessels as such efficiency is modified by the presence of opportunity costs, the status quo may be considered to result in higher producer surplus to the harvest sector than any of the allocation options. Unfortunately, this condition is not possible to ascertain at the present time, since it is possible that the average allocation may turn out to be equal to that under Option B-1.c or Option B-1.d., or may even favor the net vessels. In this last case, there is a possibility that producer surplus in the harvest sector may decline, since profit gains less opportunity costs to the net vessels may not offset profit losses to the hook-and-line vessels.

B-2. South/West Area

The commercial suballocation for the South/West Area is to be further allocated:

Preferred Option B-2.a: Net vessels: 50 percent; hook-and-line vessels: 50 percent.

Rejected Option B-2.b: Provide a phasing out of the net fishery over time:

1994-1995: Net vessels: 40 percent
1995-1996: Net vessels: 30 percent
1996-1997: Net vessels: 20 percent
1997-1998: Net vessels: 10 percent
1998-1999: Net vessels: 0 percent

Rejected Option B-2.c: Status quo - No allocation by gear.

The following discussion on the effects of allocation options by gear type assumes the 50/50 allocation of the Eastern Zone subquota of Gulf group king mackerel between the North and South/west Areas. In addition, it is assumed that the trip limits proposed under a supplementary regulatory amendment would be in place and thus would be part of the status quo (unless otherwise explicitly changed) for purposes of determining the effects of the various alternatives for allocating by gear type the North Area suballocation. Such trip limit proposal stipulates that for the South/West Area there are to be no commercial trip limits until 75 percent of suballocation is taken, then 50 fish per vessel per day until the suballocation is taken.

The South/West Area allocation would be about 865 thousand pounds out of the 1.73 million pound Eastern Zone sub-quota for Gulf king mackerel. Unlike the North Area, effective fishing for Gulf king mackerel in this area starts around July 1 but prior to November 1, the South/West Area spans only the area south of the Florida/Alabama state line up through the Collier/Monroe county line. By November 1, the South/West area also includes Monroe county. Before November 1, however, only a limited fishery exists and mostly occurs in the Florida Panhandle. For the past 8 years (1985/1986 - 1992/1993), the average landings of this limited fishery amounts to about 62,000 pounds. The peak of the South/West fishery occurs around late November through early January. A record catch for a single month occurred in January 1993 when about 899,600 pounds of king mackerel were landed (see Table 3 for details). In fact, these catches were landed in a span of 10 days. Inclusive of catches during closures in the EEZ, the average catch of king mackerel in the South/West Area for the past 8 years is about 738 thousand pounds. When considering only the July through January landings, the average stands at about 540,000 pounds. During the peak season about 75 to 100 troll vessels and 16 to 20 net vessels target king mackerel in the Keys. Net vessels usually start fishing late December, although some of these vessels troll for mackerel before net fishing becomes more practicable. Most king mackerel fishermen also target other species such as stone crabs, spiny lobster, and reef fish.

It was concluded in the RIR accompanying the supplementary regulatory amendment that an allocation allowing both net and troll vessels to operate in the fishery is economically better than any other allocation. Due, however, to the presence of alternative fisheries for both types of vessels, it could not be ascertained which vessel type should receive a greater portion of the allocation. From this standpoint, Option B-2.b may be regarded as the least economically beneficial among the three alternatives for allocation, but it cannot be ascertained which of the two remaining options would generate higher producer surplus in the harvest sector.

While Option B-2.a divides the South/West Area allocation equally between net and troll vessels, the actual division would partly depend on the trip limits adopted for this area. If trip limits proposed under the supplementary regulatory amendment remained after the implementation of this plan amendment, large net vessels in the Keys would be able to participate in the fishery during the time when there are no trip limits until 75 percent of the South/West Area allocation is filled. While it is possible that net vessels could fill its 50 percent allocation during the unlimited catch period, it can happen that net fishing would not be practicable during this time. In the event that this happens, part of the South/West Area allocation assigned to net vessels may not be filled. This could have future positive effects on the stock and the level of TAC, but it would mean relatively lower producer surplus in the short-run.

The actual share of the net vessels under Option B-1.c. would also partly depend on the trip limits adopted for this area. Given the same trip limits under the supplementary regulatory amendment, net vessels could very likely harvest no more than 75 percent of the allocation, since after 75 percent of the allocation is filled, the trip limits would drop very low to make it unprofitable for nets to fish for king mackerel. While it may be noted that during the last two weeks of the 1992/1993 fishing season, net vessels landed about 0.652 MP, or approximately 75 percent of the South/West Area allocation, this occurred when no trip limits were instituted and the Eastern Zone quota was not divided equally between the North Area and South/West Area. Mainly due to troll vessel landings at the early part of the peak season, net vessel share of total landings may be expected to be significantly lower than 75 percent under the status quo. There is even the possibility that net share could fall below 50 percent when net fishing is simply unsuitable due, for example, to less schooling of fish. But whatever is the share of the net vessels, it would appear to be reflective of the efficiency of such vessel type under given fishing condition. Mainly due to this flexibility in allocation afforded by the status quo, this option may be regarded as more economically beneficial than Option B-2.a.

C. Permit Endorsement

By Gear

Preferred Option C-1: A gear permit endorsement for the use of nets is required for taking Gulf group king mackerel in the South/West Area of the Eastern Zone. Permittees with the net endorsement may fish for king mackerel only with nets in that area.

Rejected Option C-2: Provide for separate permits for net and hook-and-line fishermen on the Eastern Zone Gulf group king mackerel.

Rejected Option C-3: No change, the same commercial permit is used for all gear types.

By Area

Rejected Option C-4: Provide for an endorsement to the commercial king mackerel vessel permit for the Eastern Zone Gulf group king mackerel allowing fishermen to fish in either the Northern Area or the South/West Area each season, but not both.

Preferred Option C-5: Status quo - No area endorsement for Eastern Zone Gulf group king mackerel.

Under Option C-1 vessels can only fish using either net or hook-and-line with no gear switching within a given fishing year while Option C-4 means that vessels can fish only in one area in any

one fishing year. These two options are not mutually exclusive and can be imposed at the same time. The adoption of both options means that vessels can fish in only one area and use only either net or hook-and-line in any one fishing year.

The immediate impact of Option C-1 is the prevention of vessels fishing in the South/West Area from switching gear type within a fishing season, although vessels may make the gear switch from one year to the next. The adverse effect of this option on fishermen's income would be mainly distributional in nature since any income forgone by one group of fishermen would be taken by another. This option has also an effect on vessel efficiency considering that such efficiency is partly influenced by the behavior of the king mackerel stock. That is, during the early part of the season, harvest of king mackerel by hook-and-line gear is more economically efficient, but later in the season net fishing becomes economically efficient as well. Prohibiting the switch from one gear type to another would restrict the use of vessels in the most economically efficient manner. The extent of this effect on efficiency of vessels fishing in this particular area is partly determined by the historical practice of vessels to switch gear types and by other regulations imposed or proposed for the fishery. The next two paragraphs explore the extent of such effect on efficiency, and basically conclude that such effect is relatively minimal.

The Councils' current preferred position is to allocate the Eastern Zone sub-quota between the South/West and North Area according to a 50/50 ratio. In the particular case of the South/West Area, a 50/50 allocation between net and hook-and-line vessels is the alternative preferred by the Councils. Also, this particular area is currently under an unlimited catch limit until 75 percent of this area's suballocation is reached and thereafter a 50-fish daily vessel limit will be in effect until the entire suballocation is reached. Information from public testimonies indicates that the practice of vessels to switch gear types within a given season is not widespread so that from this standpoint the effect on efficiency may be regarded as relatively small.

The presence of other regulations for the South/West area presents one scenario wherein Option C-1 may result in reduction in vessel efficiency. In the event that the net vessel allocation in the South/West Area (i.e., 50 percent of the subquota) is not fully taken before 75 percent of the area's total subquota is reached, a portion of producer surplus accruing to net vessels would be forgone by these vessels as well as by the entire industry if net vessels were not allowed to switch gear types. The magnitude of this loss would increase with increases in overall TAC and commercial quotas/subquotas. However, the likelihood of this loss to actually occur is reduced by the capacity of net vessels to harvest its allocation in a short time and by the possibility that net vessels from the North Area would choose to fish in the South/West Area (unless Option C-4 is adopted). The case of net vessel capacity is illustrated by what transpired in the 1993/1994 season. Approximately 56 percent (0.486 MP) of the South/West Area subquota was taken off Key West in four fishing days in late December 1993 by 12 Florida Keys gillnet vessels (Godcharles, 1994). Harvest in this area was limited to 50 fish per vessel per day on December 29, 1993 when 75 percent of this area's subquota was reached. This experience means that the mentioned effect on vessel efficiency is also relatively small.

Option C-2 requires gear endorsement in both the South/West and North Areas. This option's effects for the South/West Area are similar to those discussed for Option C-1. While most of the discussions under Option C-1 also apply to the North Area under Option C-2, this particular area presents a relatively unique situation. That is, the restrictiveness of the trip limit, i.e., 50 fish per vessel until 50 percent of the suballocation is reached, and thereafter 25 fish per vessel until the entire suballocation is taken, precludes the re-entry of net vessels into the fishery. That is, the restrictiveness of the trip limits makes it unprofitable for net vessels to fish for king mackerel in the mentioned area. In this situation, permitting by gear type would not have any significant impact on fishing participants in addition to that brought about by the trip limit. Of course, net vessels would

stand to lose the dollar amount expended for securing the endorsement since they would not be able to fish using nets.

Under Option C-4, fishermen cannot fish in both areas of the Eastern Zone in any one fishing year, but can opt to switch fishing areas from one year to another. The immediate effect of this requirement is to restrict vessel mobility within a fishing season. Taking into account the proposed area allocation of the Eastern Zone commercial quota and the trip limits in each of the two areas in the Eastern Zone, the type of vessels most likely affected by this option are the hook-and-line vessels in the North Area, since they are the ones afforded with the major incentive to fish in both areas. Net vessels in the North Area have no other choice but to opt for an endorsement that would allow them to fish in the South/West Area since they would be virtually excluded from fishing in the North Area due to that area's restrictive trip limits. Net vessels in the South/West Area would not find it profitable to fish in the North Area due to that area's restrictive trip limits and longer travel time for fishing. While there is some price advantage for king mackerel landed in the North Area, i.e., on average about \$0.58 per pound (Palmer, 1994), hook-and-line vessels in the South/West Area may still find it unprofitable to fish in the North Area due to that area's restrictive trip limits and higher fishing cost due to longer travel time for fishing.

The North Area troll fishery is composed of about 100 full-time and 100 part-time operations. The full-timers operate out of Jupiter, Port Salerno, Fort Pierce, Sebastian, and Riviera Beach. Normally there is one fisherman per boat. The part-timers operate mostly out of Palm Beach, frequently two or three fishermen per boat. Approximately 40 percent of full time trollers switch to bottom fishing for various reef fish species when the Gulf king mackerel season ends. The remainder of these full time trollers tie up their boats when the Gulf king mackerel season closes. Some engage in various non-fishing jobs, while the great majority reportedly wait for the opening of the Atlantic king mackerel season on April 1. (Antozzi, 1993). The size then of these fishermen's fishing operation and the distance involved in traveling from the North Area to the South/West Area make the likelihood of these trollers to fish in the South/West Area relatively low. In this case, the endorsement requirement would also have minimal impact on these fishermen. In essence then, the permit endorsement by area (Option C-4) would have relatively minimal effects on the fishing participants, and thus this option would not be significantly different from Option C-5.

Options C-1 and C-4 have implications on the enforcement of other regulations and the monitoring of catches. If some form of gear allocation is adopted, monitoring of catches would be enhanced by way of assigning landings to appropriate vessel category, and this can be better achieved under Option C-1 than under Option C-3, or better still under Option C-2 than under either Option C-1 or Option C-3. In the same manner, monitoring of catches by area under the 50/50 allocation between the two areas of the Eastern Zone subquota and enforcement of this rule are likely to be better achieved under Option C-4 than under Option C-5. Although in principle, monitoring of more quotas/subquotas would be more costly than monitoring only one or few quotas/subquotas, the current monitoring procedure already does account for catches made by net and hook-and-line vessels. In this case, the cost of monitoring quotas/subquotas under Option C-1 (or C-2) and Option C-4 may not significantly differ from that of the status quo, i.e. Option C-3 and Option C-5.

Government Costs of Regulation

Federal government costs of this action were associated with meetings, travel, preparation of various documents and reviewing all documents. Other sources of additional costs include extraordinary research specifically done for the purpose of this particular action, additional statistics costs, and additional enforcement costs resulting from the action. In the latter cases, no additional costs are anticipated.

Council costs of document preparation, meetings, and information dissemination.....	\$ 30,000
NMFS administrative costs of document preparation, meetings and review.....	\$ 15,750
Law enforcement costs.....	None additional
Research and statistics.....	None additional
TOTAL.....	<u>\$ 45,750</u>

Although the proposed allocation between North Area and South/West Area and the proposed gear allocation within the South/West Area would entail additional enforcement costs, such costs have already been incurred when the trip limits for each area were established. The permit endorsement for the use of nets for taking Gulf king mackerel in the South/West Area are not expected to incur additional costs. Such requirement may in fact enhance the enforcement of the gear allocation in the area.

Summary and Expected Net Impact of Proposed Action

The proposed regulatory action constitutes changes in management for the Eastern Zone of the Gulf king mackerel fishery. The emphasis of the summary is on the expected economic impact of the preferred options.

The preferred option to allocate the Eastern Zone king mackerel subquota equally between the North Area and South/West Area is adjudged mainly as a means of redistributing benefits from one sector to another and is not expected to change the level of net economic benefits to the harvest sector, dealers and consumers of Gulf king mackerel. It is worth recalling that such redistribution of benefits considers the 1993/1994 season as the point of reference. There is, however, some possible social gain associated with this option mainly due to strong public support for the measure.

In the case of allocation by gear type within each of the North Area and South/West Area, it was determined that an allocation allowing both net and troll vessels to operate in the fishery is deemed economically better than any allocation that does otherwise. In the North Area, it was also determined that an allocation that would favor the hook-and-line vessels would be accompanied with relatively higher producer surplus. If trip limits under the supplementary regulatory amendment were not modified, the preferred option would likely generate lower producer surplus than other options that would allow net vessels to re-enter the fishery.

For the South/West Area, the preferred option to divide the subquota equally between net and troll vessels could yield lower short-run producer surplus if fishing became unsuitable for net vessels to

operate. Under this condition, the status quo may appear economically better than the preferred option, although most recent catch statistics does not appear to support a hypothesis of significant difference in impacts between the preferred option and the status quo.

The set of options relating to permit endorsement of commercial vessels in the Eastern Zone by gear type used becomes necessary only when allocation by gear type within each of the two areas in the Eastern Zone is established. The preferred option for the South/West Area, i.e. with gear endorsement, and that for the North Area, i.e., without gear endorsement, match the preferred options for allocation by gear type in these two areas. In the case of permit endorsement by area, it was determined that both options, namely, area permit endorsement and status quo, have about similar effects.

Government costs for preparing and implementing this action are estimated at \$30,000. There are no expected additional costs from data collection, research, or enforcement from this action.

At this juncture, it is worth stressing the fact that the analysis done in this RIR abstracted from consideration of the long-term effects of the proposed measures. The condition that the fishery is essentially managed as an open access fishery generally implies that any benefits from regulation are bound to be dissipated over the long run since fishing effort and capitalization in the fishery could increase especially when seen against the backdrop of an improving king mackerel stock. In addition, the analysis proceeded by focusing primarily on the regulatory actions directly affecting the North Area or the South/West Area only, and thereby abstracted from considering other sources of inefficiencies characterizing the fishery such as the establishment of a TAC, commercial/recreational allocation of the TAC, and Eastern/Western Zone sub-allocation of the commercial Gulf king mackerel quota. Even with the presence of more information, the presence of such potential sources of inefficiencies would, by virtue of the so-called "second best theory" (Lipsey and Lancaster, 1956), preclude analysis of regulatory impacts strictly from the standpoint of economic efficiency.

Determination of a Significant Regulatory Action

Pursuant to E.O. 12866, a regulation is considered a "significant regulatory action" if it is likely to result in: a) an annual effect on the economy of \$100 million or more; b) a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or c) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The entire commercial Gulf king mackerel fishery is valued at significantly less than \$100 million. The proposed actions in this regulatory amendment apply only to Eastern Zone commercial Gulf king mackerel fishery, which currently is allocated a quota of about 1.73 million pounds. Hence, given the size of the fishery and the segment of the fishery directly affected by the proposed regulation, it is concluded that any revenue or cost impacts on the fishery would be significantly less than \$100 million annually.

The preferred option to allocate the Eastern Zone Gulf king mackerel equally between the North and South/West Areas is expected to mainly result in redistributing revenues from one sector of the fishery to another and is not expected to affect the overall revenue of the harvest sector, the revenues and costs of dealers, and expenditures of consumers. A similar statement can be made about the allocation options by gear type.

The proposed trip limits are expected to effect no major cost increase to the Gulf king mackerel industries. The \$30,000 identified as federal cost has been incurred in the preparation of the regulatory action.

The proposed equal division of the Eastern Zone Gulf king mackerel between the North Area and South/West Area and the allocation of the latter's area subquota by gear types are also expected to rule out any adverse effects on employment, investment, productivity, innovation, or on the competitive status of the domestic fishery relative to domestic and foreign markets. A similar statement can be made about the effects of permit endorsement by gear type.

It is therefore concluded that this regulation if enacted would not constitute a "significant regulatory action" under any of the mentioned criteria.

Initial Regulatory Flexibility Analysis

Introduction

The purpose of the Regulatory Flexibility Act is to relieve small businesses, small organizations, and small governmental entities from burdensome regulations and record keeping requirements. The category of small entities likely to be affected by the proposed regulatory amendment is that of commercial businesses currently engaged in the Eastern Zone of the Gulf king mackerel fishery. The impacts of the proposed action on these entities have been discussed above. The following discussion of impacts focuses specifically on the consequences of the proposed action on the mentioned business entities. An Initial Regulatory Flexibility Analysis (IRFA) is conducted to primarily determine whether the proposed action would have a "significant economic impact on a substantial number of small entities." Although an IRFA focuses more on adverse effects, determination of beneficial significant effects is also an integral component of the analysis. In addition to analyses conducted for the Regulatory Impact Review (RIR), the IRFA provides an estimate of the number of small businesses affected, a description of the small businesses affected, and a discussion of the nature and size of the impacts.

Determination of Significant Economic Impact on a Substantial Number of Small Entities

In general, a "substantial number" of small entities is more than 20 percent of those small entities engaged in the fishery (NMFS, 1992). For the 1991/1992 fishing season, a total of 3,069 permits were issued broken down into 1,623 commercial, 938 charter boat, and 549 both commercial and charter boat permits (Raulerson, 1992). In the Northern Area there are about 150 hook-and-line vessels and 12 net vessels, and in the South/West Area there are about 100 troll vessels and 20 net vessels. The Small Business Administration (SBA) defines a small business in the commercial fishing activity as a firm with receipts of up to \$2.0 million annually. Since the proposed action will affect practically all participants of the Eastern Zone commercial Gulf king mackerel fishery, the "substantial number" criterion will be met in general.

Economic impacts on small business entities are considered to be "significant" if the proposed action would result in any of the following: a) reduction in annual gross revenues by more than 5 percent; b) increase in total costs of production by more than 5 percent as a result of an increase in compliance costs; c) compliance costs as a percent of sales for small entities are at least 10 percent higher than compliance costs as a percent of sales for large entities; d) capital costs of compliance represent a significant portion of capital available to small entities, considering internal cash flow and external financing capabilities; or e) as a rule of thumb, 2 percent of small business entities being forced to cease business operations (NMFS, 1992).

The preferred option to equally divide the Eastern Zone Gulf king mackerel between the North and South/West Areas is expected to redistribute revenues in such a way that historical allocation may be approximated. In contrast to what happened in the 1992/1993 season, such redistribution of revenues could mean a relatively substantial increase in revenues to the hook-and-line vessels in the North Area. As mentioned in the RIR, the share of the South/West Area was only 33 percent in the 1992/1993 season, and could have been worse were it not for the re-opening of the fishery. Thus, the proposed 50/50 allocation may be expected to result in more than 5 percent change in revenues to the North Area vessels. Conversely, this could mean more than 5 percent reduction in revenues to the South/West Area vessels. Although not quantifiable, the proposed and possibly resulting allocation by gear type within each of the two mentioned areas could also result in more than 5 percent increase in revenues for some vessels and more than 5 percent decrease in revenues for others. Permit endorsement by gear type is not expected to bring about additional effects on revenues over those of the allocation by gear type.

The proposed measures are not expected to increase the operating and capital costs to fishermen as a result of complying with the regulations. Considering that all participants in the commercial Gulf king mackerel fishery may be deemed small business entities, the issue of big versus small business operations is not relevant in determining distributional/regional effects of regulations, and it thus also rules out disproportionate effects on capital costs of compliance. Also, none of the current participants may be expected to cease its fishing operation. It may be noted, however, that the proposed option for allocating harvest in the North Area by gear type would not enable net vessels to re-enter the fishery if the trip limits under the supplementary regulatory amendment were not modified.

It can be inferred from the foregoing discussion that the proposed regulation can be expected to result in a significant economic impact on a substantial number of small entities in the commercial Gulf king mackerel fishery. On this account, an IRFA has been prepared. The following comprises the remaining portions of the IRFA.

Explanation of Why the Action is Being Considered

Refer to the section on Problems and Objectives in the RIR and to Sections I and II of the amendment document.

Objectives and Legal Basis for the Rule

Refer to the section on Problems and Objectives in the RIR and to Sections I and II of the amendment document. The Magnuson Fishery Conservation and Management Act of 1976 provides the legal basis for the rule.

Demographic Analysis

Refer to the Coastal Pelagic Fishery Management Plan, as amended.

Cost Analysis

Refer to the Government Cost and Summary sections of the RIR.

Competitive Effects Analysis

The industry is composed entirely of small businesses (harvesters and charter boats operations). Since no large businesses are involved, there are no disproportional small versus large business effects.

Identification of Overlapping Regulations

The proposed action does not create overlapping regulations with any state regulations or other federal laws.

Conclusion

The proposed regulation is concluded to have a significant economic impact on a substantial number of small entities. In this regard, the foregoing information and pertinent portions of the RIR are deemed to satisfy the analysis required under the RFA.

IX. REFERENCES

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Table 1. Historic commercial landings estimates and closure dates of the Gulf group king mackerel from Florida are listed below. The "eastern region" includes the Florida east coast from the Volusia/Flagler County line to the Dade/Monroe County boundary from November 1 - March 31; major landing ports include Cape Canaveral, Sebastian, Ft. Pierce, Port Salerno, and Palm Beach areas. The "western region" includes the entire west coast of Florida from the Dade/Monroe County line to the Florida/Alabama boundary for the entire fishing year (July 1 - June 30); the major landing port is Key West. Table updated June 18, 1993.

GULF KING MACKEREL LANDINGS (THOUSANDS OF POUNDS) OFF FLORIDA

<u>FISHING YEAR</u>	<u>WESTERN REGION</u>	<u>EASTERN REGION</u>	<u>TOTAL</u>	<u>QUOTA</u>	<u>CLOSURE DATE</u>
1970/71	2,306 (61%)	1,443 (39%)	3,750	N/A	N/A
1971/72	1,488 (41%)	2,133 (59%)	3,621		
1972/73	2,171 (53%)	1,956 (47%)	4,127		
1973/74	6,038 (67%)	2,962 (33%)	9,000		
1974/75	2,079 (47%)	2,358 (53%)	4,438		
1975/76	2,975 (48%)	3,183 (52%)	6,158		
1976/77	5,109 (62%)	3,116 (38%)	8,224		
1977/78	1,946 (45%)	2,365 (55%)	4,310		
1978/79	1,556 (45%)	1,874 (55%)	3,430		
1979/80	2,476 (69%)	1,118 (31%)	3,593		
1980/81	3,181 (56%)	2,528 (44%)	5,710		
1981/82	2,059 (38%)	3,393 (62%)	5,452		
1982/83	1,322 (41%)	1,921 (59%)	3,243		
1983/84	1,087 (46%)	1,274 (54%)	2,361		
1984/85	827 (37%)	1,382 (63%)	2,210		
Mean (1970-84)	2,441 (53%)	2,200 (47%)	4,642		
Amendment 1					
1985/86	1,634 (63%)	943 (37%)	2,577	1,080	3/12/86
1986/87	447 (47%)	508 (53%)	955	600	2/04/87
1987/88	36 (9%)	361 (91%)	397	480	12/29/87
1988/89	503 (54%)	425 (46%)	928	750	12/31/88
1989/90	809 (69%)	367 (31%)	1,177	940	1/09/90
1990/91	301 (30%)	694 (70%)	995	940	1/04/91
1991/92	784 (52%)	714 (48%)	1,498	1,270	1/31/92
1992/93	1,394 (67%)	692 (33%)	2,087	1,730*	1/13/93**
Mean (1985-92)	739 (56%)	588 (44%)	1,327		
Mean (1970-93)	1,849 (53%)	1,640 (47%)	3,489		

* Quota increased to 1.989 M with 0.259 M emergency supplement.

** Re-Opened by emergency action February 18 to March 26, 1993.

Notes:

1. During the last 2 weeks of the 1992/93 fishing season, about 65 percent (652,000 pounds) of king mackerel landed in Key West were captured by 16 gillnet vessels.
2. Approximately 80 hook-and-line vessels participate in the Florida east coast king mackerel fishery.

TABLE 2
**Annual Reported Net Catches of King Mackerel
and Percent of Total Commercial Landings
from the East and West Coasts of Florida**

	<u>EAST COAST</u>		<u>WEST COAST</u>	
	<u>Net Catch (Pounds)</u>	<u>% Total</u>	<u>Net Catch (Pounds)</u>	<u>% Total</u>
1960	13,700	1	21,800	1
1961	15,800	1	83,500	3
1962	120,000	6	1,212,200	58
1963	526,500	24	2,161,000	76
1964	433,500	21	1,087,700	76
1965	881,900	35	1,633,900	83
1966	770,200	43	2,352,600	87
1967	1,899,800	64	2,781,000	80
1968	1,483,100	57	3,307,900	80
1969	1,756,000	60	2,614,300	75
1970	2,354,000	54	1,912,300	76
1971	1,692,900	56	2,397,900	86
1972	1,290,500	37	1,024,300	71
1973	1,175,600	32	1,822,100	79
1974	1,593,200	37	5,142,500	83
1975	1,197,500	32	1,976,200	72
1976	2,068,700	43	2,396,600	84
1977	1,183,807	28	4,690,700	90
1978	1,244,700	34	1,118,500	64
1979	1,032,000	31	958,000	57
1980	167,000	5	1,646,000	55
1981	758,000	20	2,021,000	66
1982	583,000	13	1,444,000	67
1983	1,035,930	33	987,776	74
1984	824,410	34	826,266	75
1985	738,961	28	536,710	70
1986	220,661	9	1,328,634	78
1987	859,045	33	270,336	50
1988	1,202,767	45	339,951	59
1989	764,356	42	65,318	23
1990	29,464	2	599,583	59
1991	13,530	1	60,530	14

Source: Powers and Eldridge, 1983a; Updated Data from NMFS Statistics

TABLE 3
 GULF GROUP KING MACKEREL
 1992/93 PRELIMINARY FLORIDA (EASTERN ZONE) COMMERCIAL LANDINGS
 WHOLE WEIGHT IN POUNDS
 (NMFS/SEFC, FLA DEP NAT RESOUR)

MONTH	FLORIDA	COASTS	TOTAL	CUM.	% QUOTA (1.73 M)
	WEST	EAST		TOTAL	
July '92	21,753		21,753	21,753	1
August	13,784		13,784	35,537	2
September	17,267		17,267	52,804	3
October	19,590		19,590	72,394	4
November	24,372	39,677	64,049	136,443	8
December	379,234	313,739	692,973	829,416	48
January '93	899,600	39,847	939,447	1,768,863	102
(Closed January 13, 1993; Re-opened February 18, 1993)					
February	16,463	119,424	135,887	1,904,750	110
March	2,271	179,495	181,766	2,086,516	121
Totals	1,394,334 (67%)	692,182 (33%)	2,086,516		

FLORIDA GULF KING MACKEREL LANDINGS IN POUNDS:
 UNLIMITED DAILY CATCHES TAKEN AFTER ENFORCEMENT OF
 STATE TRIP LIMIT REGIME WAS WITHDRAWN BY FLORIDA. (NMFS/SEFC)

DAY (1993)	LOWER KEYS	EAST COAST
Jan 7	289,013	5,200
Jan 8	111,011	6,000
Jan 9	69,469	0
Jan 10	0	0
Jan 11	66,916	3,465
Jan 12	104,871	2,100
Jan 13	144,762	9,522
Totals:	786,072	26,287

GULF KING MACKEREL LANDINGS IN POUNDS
 EMERGENCY SUPPLEMENTAL CATCH FEBRUARY - MARCH 1993,
 UNDER 259,000 POUNDS QUOTA AND 25-FISH DAILY LANDING LIMIT
 FOR THE FLORIDA SOUTHEAST COAST. (NMFS/SEFC)

		CUMULATIVE	QUOTA BALANCE	PERCENT OF QUOTA
Feb 18 - 25:	93,544	93,544	165,456	36
Feb 26 - Mar 4:	41,162	134,706	124,294	52
Mar 5 - 11:	73,036	207,742	51,258	80
Mar 12 - 16:	16,378	224,120	34,880	87
Mar 17 - 18:	8,925	233,045	25,955	90
Mar 19 - 22	1,940	234,985	24,015	91
Mar 23 - 24	8,348	243,333	15,667	94
Mar 25 - 26	26,108	269,441	- 10,441	104

Notice was filed with the FEDERAL REGISTER March 25, 1993 and the fishery was re-closed 12:01 a.m. March 27, 1993.

Appendix I

Section 6.1.1: Mechanism for Determination of Framework Adjustments, as modified by this and previous amendments, is revised as follows:

Section 12.6.1.1

- A. An assessment panel appointed by the Councils will normally reassess the condition of each stock or group of king and Spanish mackerel and cobia in alternate years for the purpose of providing for any needed pre-season adjustment of TAC and other framework measures. However, in the event of changes in the stocks or fisheries, the Councils may request additional assessments as may be needed. The Councils, however, may make annual seasonal adjustments based on the most recent assessment.

The panel shall be composed of NMFS scientists, Council staff, Scientific and Statistical Committee members and other state, university, and private scientists as deemed appropriate by the Councils. The panel will address the following items for each stock:

1. Stock identity and distribution. This should include situations where there are groups of fish within a stock which are sufficiently different that they should be managed as separate units. If several possible stock divisions exist, the assessment panel should describe the likely alternatives.
2. MSY for each identified stock. If more than one possible stock division exists, MSY for each possible combination should be estimated.
3. Condition of the stock(s) or groups of fish within each stock which could be managed separately. When the panel is able to provide separate ABC ranges for the eastern and western groups of Gulf king mackerel, separated at the Alabama-Florida border, the ratio of the mix is to be calculated on allele frequencies. Allocations between recreational and commercial users are to remain unchanged or 68 to 32 percent. For each stock, this should include but not be limited to:
 - a. Fishing mortality rate relative to F_{msy} or $F_{0.1}$.
 - b. Abundance relative to an adequate spawning biomass.
 - c. Trends in recruitment.
 - d. Acceptable Biological Catch (ABC) which will result in long-term yield as near MSY as possible.
 - e. Calculation of catch ratios based on catch statistics using procedures defined in the FMP.
4. Overfishing.
 - a. A mackerel or cobia stock shall be considered overfished if the spawning potential ratio (SPR) is less than the target level percentage recommended by the assessment panel, approved by the Scientific and Statistical Committee (SSC), and adopted by the Councils.

The target level percentage shall not be less than 20 percent. (Based on the recommendation of the assessment panel and approval by the SSC, the Councils and RD have approved a SPR of 30 percent for king and Spanish mackerels.)

- b. When a stock is overfished (as defined in a), the act of overfishing is defined as harvesting at a rate that is not consistent with programs to rebuild the stock to the target level percentage, and the assessment panel will develop ABC ranges based on a fishing mortality rate that will achieve and maintain at least the minimum specified SPR. The recovery period is not to exceed 12 years for king mackerel beginning in 1985 and 7 years for Spanish mackerel beginning in 1987.
- c. When a stock is not overfished [as defined in (a)], the act of overfishing is defined as a harvest

rate that if continued would lead to a state of the stock that would not at least allow a harvest of OY on a continuing basis, and the assessment panel will develop ABC ranges based upon OY (currently MSY).

5. Management options. If recreational or commercial fishermen have achieved or are expected to achieve their allocations, the assessment panel may delineate possible options for nonquota restrictions on harvest, including effective levels for such actions as:
 - a. Bag limits
 - b. Size limits
 - c. Gear restrictions
 - d. Vessel trip limits
 - e. Closed season or areas, and
 - f. Other options as requested by the Councils
 6. Other biological questions as appropriate.
- B. The assessment panel will prepare a written report with its recommendations for submission to the Councils, by such date as may be specified by the Councils. The report will contain the scientific basis for their recommendations and indicate the degree of reliability which the Council should place on the recommended stock divisions, levels of catch, and options for nonquota controls of the catch.
 - C. The Councils will consider the report and recommendations of the assessment panel and such public comments as are relevant to the assessment panel's submission. A public hearing will be held at a time and place where the Councils consider the panel's report. The Councils may convene the joint Advisory Panel and may convene the Scientific and Statistical Committee to provide advice prior to taking final action. After receiving public input, Councils will make findings on the need for changes.
 - D. If changes are needed in MSYs, TACs, quotas, bag limits, size limits, vessel trip limits, closed seasons or areas, gear restrictions, or initial requirement of permits for each stock of king or Spanish mackerel or cobia, the Councils will advise the Regional Director of the Southeast Region of the National Marine Fisheries Service (RD) in writing of their recommendations, accompanied by the assessment panel's report, relevant background material, and public comment.

Recommendations with respect to the Atlantic groups of king and Spanish mackerel will be the responsibility of the South Atlantic Council, and those for the Gulf groups of king and Spanish mackerel will be the responsibility of the Gulf Council. This report shall be submitted by such date as may be specified by the Councils.

- E. The RD will review the Councils' recommendations, supporting rationale, public comments, and other relevant information, and if he concurs with the recommendation, will draft regulations in accordance with the recommendations. He may also reject the recommendation, providing written reasons for rejection. In the event the RD rejects the recommendations, existing regulations shall remain in effect until resolved. However, if the RD finds that a proposed recreational bag limit for Gulf migratory group or groups of king mackerel is likely to exceed the allocation and rejects the Council's recommendation, the bag limit reverts to one fish per person per day.
- F. If the RD concurs that the Councils' recommendations are consistent with the goals and objectives of the plan, the National Standards, and other applicable law, he shall implement the regulations by notice in the Federal Register prior to the appropriate fishing year or such dates as may be agreed upon with the Councils. A reasonable period for public comment shall be afforded, consistent with the urgency, if any, of the need to implement the management measure.

Appropriate regulatory changes which may be implemented by the Regional Director by notice in the Federal Register include:

1. Adjustment of the point estimates of MSY for cobia, for Spanish mackerel within a range of 15.7 million pounds to 19.7 million pounds, and for king mackerel within a range of 21.9 million pounds to 35.2 million pounds.
2. Setting total allowable catches (TACs) for each stock or group of fish which should be managed separately, as identified in the FMP provided:
 - a. No TAC may exceed the best point estimate of MSY by more than ten percent.
 - b. No TAC may exceed the upper range of ABC if it results in overfishing as defined in Section 12.6.1.1, A.4.
 - c. Downward adjustments of TAC of any amount are allowed in order to protect the stock and prevent overfishing.
 - d. Reductions or increases in allocations as a result of changes in the TAC are to be as equitable as may be practical utilizing similar percentage changes to allocations for participants in a fishery. (Changes in bag limits cannot always accommodate the exact desired level of change.)
3. Adjusting user group allocations in response to changes in TACs according to the formula specified in the FMP.

Implementing or modifying quotas, adjusted quotas, bag limits, size limits, vessel trip limits, closed seasons or areas, gear restrictions, or initial requirement of permits, as necessary to limit the catch of each user group to its allocation.

Appendix II

Permits

Section 12.6.4.1

A. Commercial Vessel Permits

Annual permits are required for vessels fishing under the commercial quota on king or Spanish mackerel. These vessels are exempt from the recreational bag limit. To be eligible for a commercial permit, the owner or operator of the vessel must be able to show he derived more than ten percent of his earned income from commercial fishing, i.e., the sale of his catch during one of three preceding calendar years.

An operator who is issued a permit must be aboard the vessel when it is operating under the permit. For a corporation to be eligible for a permit, a shareholder or officer of the corporation or the vessel operator must qualify.

Vessels fishing a group of fish for which commercial permits are issued and which do not possess a permit are presumed to be recreational boats and are subject to recreational bag limits.

Qualifying charterboats may obtain commercial permits to fish under the commercial quotas but must adhere to bag limits when under charter or when more than three persons are aboard.

Permits are transferable on the sale of vessel with new owner being responsible for changing name and address. The new owner or operator must be able to qualify.

Boats with permits must cease fishing for that group or zone for mackerel when its commercial quota is reached and the season closed. Charterboats with commercial permits may continue to fish under the bag limit.

A fee may be charged for the permit, but shall not exceed administrative costs incurred in issuing the permits. Fees are expected to be about \$34.00.

The commercial vessel's official number is to be displayed on the port and starboard sides of the deck house or hull and on an appropriate weather deck so as to be clearly visible from enforcement vessels and aircraft. The number is to be in black Arabic numerals at least 18 inches in height for vessels over 65 feet in length and 10 inches in height for all other vessels.

12.6.4.1 B Charterboat Permits

Annual permits are required for charterboats fishing for coastal migratory pelagics for hire. Charterboats normally fish under bag limits but may also be eligible to obtain commercial permits to fish under the commercial quota when not under charter.

APPENDIX III

Allocations

12.6.3.1 King Mackerel Allocation

1. The TAC's for king mackerel have been divided between recreational and commercial fishermen based on catch ratios from 1975 to 1979.
2. The TAC for king mackerel in the Gulf group is to be allocated with 68 percent for the recreational fishermen and 32 percent for the commercial fishermen.

When the Council's stock assessment panel is able to provide ABC ranges for separate eastern and western subgroups within the Gulf migratory group, the separation is to be at the Florida-Alabama border and is based on allele frequencies. The TACs for both subgroups of Gulf king mackerel are to continue to be allocated at 68 percent for recreational and 32 percent for commercial fishermen and are to be first implemented with the seasonal adjustment for that fishing year under the framework procedure.

3. Until separate ABC ranges and TACs for eastern and western Gulf subgroups can be developed, the commercial allocation for the Gulf migratory group is divided between eastern and western zones, with the separation to be the Florida-Alabama border and extending south. The allocation is divided with 69 percent of the commercial allocation for the eastern zone and 31 percent for the western zone.
4. For the Atlantic group of king mackerel, the TAC is allocated with 62.9 percent for recreational and 37.1 percent for commercial fishermen. No more than 0.4 million pounds may be harvested by purse seine.

12.6.3.3 Spanish Mackerel Allocation

1. Allocation of TAC for the Gulf migratory group of Spanish mackerel is to be divided between commercial and recreational fishermen based on the average ratio of the catch for the period 1979 through 1985. The ratio is to be 57 percent for commercial fishermen and 43 percent for recreational fishermen.
2. Allocation of TAC for the Atlantic group of Spanish mackerel is to be 50 percent for commercial fishermen and 50 percent for recreational fishermen.

